

Energy Initiatives at Georgia Tech

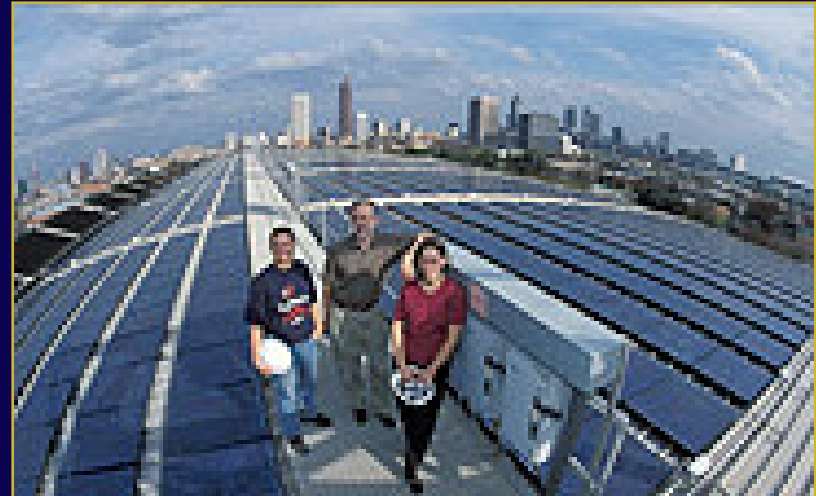
President G. Wayne Clough

Campus Visit by Senator Saxby Chambliss

August 8, 2006

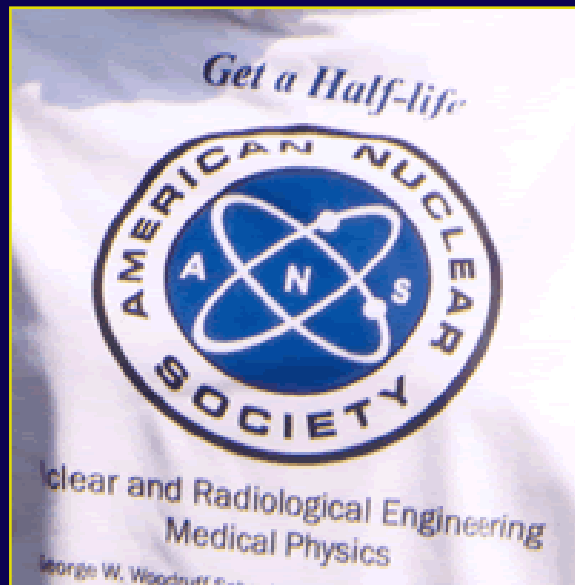
Solar energy

University Center of
Excellence in Photovoltaics
Research and Education

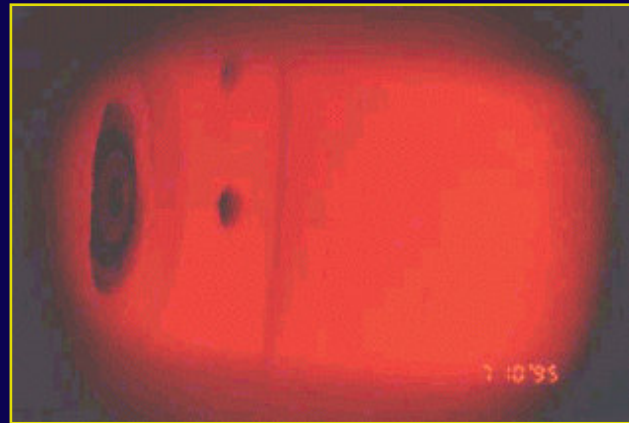


Nuclear energy

- Nuclear fusion as future power source
- New materials for rigors of producing nuclear energy, shielding radiation sources



Combustion Laboratory



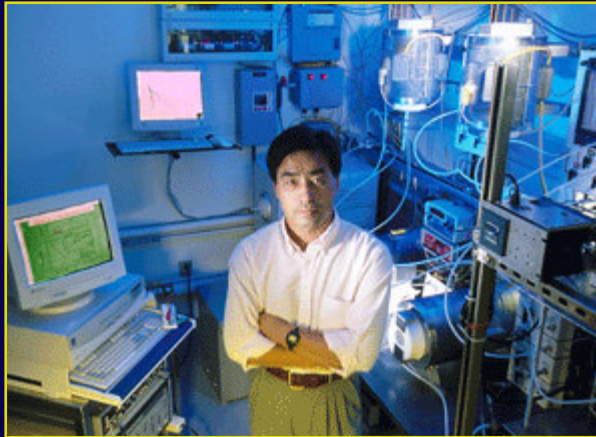
- Flameless combustion
- Using sound waves to increase efficiency and productivity and lower emissions in residential and industrial combustion systems
- Leader of NASA university research consortium on combustion and propulsion

NEETRAC: National Electric Energy Testing Research and Applications Center

- Leading edge R&D
- Developing state-of-the-art test methodologies, equipment
- Technology transfer
- Coordinating and leading standards development
- High-level education programs



Fuel cell and battery technologies



- Low-emission vehicles
- Wireless telecommunications
- Distributed stationary power supplies

Center for Organic Photonics and Electronics

- National Center of Excellence
- Develops new materials
- Manipulates photons in light in ways similar to electrons



SPTTE: Southern Pine to Ethanol

- Negative CO₂ emissions
- Costs \$1.50 per gallon to produce
- Conventional vehicles can burn it mixed with gasoline
- Offsets decline in forest products industry
- Capacity to generate up to 20% of Georgia's fuel



Strategic Energy Initiative

- Actively engages in and facilitates:
 - ▷ Energy technology development
 - ▷ Energy technology assessment
 - ▷ Demonstration projects
- Provides policy guidance based on scientific facts, engineering principles, and economic realities
- \$12 million partnership with Chevron: biofuels and hydrogen



Proposed: Transformative Energy Institute